

The Commonwealth of Massachusetts  
Executive Office of Health and Human Services  
Department of Public Health  
William A. Hinton State Laboratory Institute  
305 South Street, Jamaica Plain, MA 02130

DEVAL L. PATRICK  
GOVERNOR

TIMOTHY P. MURRAY  
LIEUTENANT GOVERNOR

JUDYANN BIGBY, MD  
SECRETARY

JOHN AUERBACH  
COMMISSIONER

10/26/2011

Michael McGee  
Assistant District Attorney, Norfolk County

Dear ADA McGee,

Enclosed is the information you requested in regards to Commonwealth vs. [REDACTED]  
Included are copies of the following:

1. Curriculum Vitae for Annie Dookhan and Kate Corbett.
2. Drug Analysis Laboratory Receipt.
3. Control Cards with analytical results for samples # [REDACTED]
4. Analysis sheets with custodial chemist's hand notations and test results.
5. GC/Mass Spectral analytical data for samples # [REDACTED]

Annie Dookhan was the custodial chemist and performed the preliminary testing and net weight for this sample. Kate Corbett was the confirmatory chemist and analyzed the GC/MS data for this sample.

If you have any questions about these materials, please call me at the number below.

Sincerely,

A handwritten signature in black ink, appearing to read "Annie Dookhan".  
Annie Dookhan  
Chemist  
Drug Analysis Lab  
Jamaica Plain, MA. 02130  
(617) 983-6622

## Curriculum Vitae

### Annie Khan (Dookhan)

#### **Education:**

University of Massachusetts, Boston, Ma, Master of Science in Chemistry.  
University of Massachusetts, Boston, Ma, Bachelor of Science in Biochemistry.

#### **Experience:**

2003 – present

#### Chemist I, II, Massachusetts Department of Public Health, Drug Analysis Laboratory

\*Completed six-week training course conducted by senior staff within the Department of Public Health, Drug Analysis Laboratory.

\*Appointed Assistant Analyst by Assistant Commissioner of Public Health, 2004.

\*Responsible for the identification of illicit drugs to determine violations of harmful and narcotic drug laws.

\*Trained in the use of complex analytical instrumentation, microscopes and balances for the purpose of drug analysis.

\*Maintenance and repairs of all analytical instruments.

\*Responsible for the Quality Control of all analytical instruments, reagents and controls/standards.

\*Oversee the Quality Control/Quality Assurance program for the Drug Lab.

\*Writing, revising and reviewing Standard Operating Procedures (SOPs) and Protocols.

\*Notary Public.

\*Qualified as an expert witness in Massachusetts Courts and U.S. District Court

2001 – 2003

#### QC Analyst I, II, UMMS-Massachusetts Biologic Laboratory, QC Material Control

\*Completed proficiency training conducted by a member of the staff within the MLB Quality Control and Quality Assurance Department.

\*Method Development for creating new techniques and enhancing vaccines for the QC Dept. and FDA.

\*Writing, revising and reviewing Standard Operating Procedures (SOPs).

\*Trained and supervised new chemists and interns for the department.

\*Routine QC testing of products for the FDA.

\*Trained in the use of complex analytical instrumentation, and balances for the purpose of QC analysis for product and validation projects.

\*Calibration, preventive maintenance, QC and QA of analytical instrumentation.

\*Complete testing of chemicals for Vendor Validation Project for the FDA.

\*Compendial testing and interpretation of the USP, ACS, FCC, AOAC, Merck Index, PDR, etc.

#### **Additional Training:**

Dept. of Justice – Forensics Professionals. (numerous trainings)

GLP/GMP training with Massachusetts Biologic Laboratory.

QC/QA training according to FDA Codes and Regulations.

GC and GC/MS trainings with Agilent Technologies and Restek.

HPLC and LC/MS/MS trainings with Waters Cooperation.

FTIR training with Spectros.

TOC training with MBL and Sievers.

#### **Association:**

American Chemical Society (ACS)

Northeastern Association of Forensics Science (NEAFS)

# Curriculum Vitae

Kate A. Corbett

## Education

### **Bachelor of Science Degree, CHEMISTRY May 2003**

MERRIMACK COLLEGE

Coursework included: Organic Chemistry, Inorganic Chemistry, Quantitative Analysis, Instrumental Analysis, Physical Chemistry, Physics, Calculus

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## Employment

### **Chemist II State Laboratory Institute (March 2008-Present)**

Massachusetts Department of Public Health

Drug Analysis Laboratory

- Responsible for the identification of substance and trafficking substances to determine violation of the Massachusetts drug laws
- Responsible for the identification of pharmaceuticals to determine violation of the Massachusetts drug laws
- Operate analytical instrumentation, microscopes and balances for forensic drug analysis

### **Chemist I State Laboratory Institute (2005-March 2008)**

Massachusetts Department of Public Health

Drug Analysis Laboratory

- Responsible for the identification of substance to determine violation of the Massachusetts drug laws
- Operate analytical instrumentation for the purpose of performing forensic drug analysis
- Successfully completed an eight week training course in the analysis of drugs conducted by senior staff of the Department of Public Health, Drug Analysis Laboratory
- Appointed an assistant analyst for the Department of Public Health, Drug Analysis Laboratory in 2005.

### **Research Associate (September 2003 – August 2005)**

SENSOR TECHNOLOGIES, INC - Shrewsbury, MA

- Prepared chemistries used in making sensor beads
- Generated and examined sensors employing fluorescence spectroscopy
- Performed protein, dye and sugar assays using UV/VIS spectrophotometry
- Carried out titrations on ricin using fluorescence correlation spectroscopy
- Statistical analysis of experimental data

### **Intern (March 2003 – August 2003)**

MASSACHUSETTS STATE POLICE CRIME LABORATORY - Sudbury, MA

- Assisted in the gathering of case files to fulfill the National Institute of Justice's No Suspect Backlog Reduction Grant
- Observed in the Evidence, Criminalistics, DNA, Drug, Trace, Toxicology, and Bomb/Arson Units

PLEASE PRINT CLEARLY OR TYPE ALL INFORMATION



The Commonwealth of Massachusetts  
Executive Office of Health and Human Services

Boston Drug  
Laboratory  
Tel (617) 983-6622  
Fax (617) 983-6625

Department of Public Health  
State Laboratory Institute

Amherst Drug  
Laboratory  
Tel (413) 545-2601  
Fax (413) 545-2608

Boston Hours  
8:00 – 11:00  
2:00 – 4:00

Amherst Hours  
9:00 – 12:00  
1:00 – 4:00

**DRUG RECEIPT**

City or Department: Roxbury Police Dept Police Reference No.: [REDACTED]

Name and Rank of Submitting Officer: Det. Detective Paul Smyth

Defendant(s) Name (last, first, initial)  
[REDACTED]

Description of Samples	To be completed by Lab Personnel	
	Gross Weight	Lab Number
2 pieces of a sandwich bag w/ white residue	5.41g	<span style="background-color: black; color: black;">[REDACTED]</span>

Received by: JDF

Date: 8/17/10

No. [REDACTED]

Date Analyzed: 11/18/10

City: Randolph Police Dpt.

Officer: Detective PAUL SMYTH

Def: [REDACTED]

Amount:

Subst: RES

No. Cont: 2 Cont: pb

Date Rec'd: 08/17/2010

No. Analyzed

Gross Wt.: 5.41

Net Weight:

• Tests: 5 & SD  
• 20AC

Prelim: cocaine

Finding: cocaine

# DRUG POWDER ANALYSIS FORM

SAMPLE # [REDACTED] AGENCY Randolph ANALYST A32  
No. of samples tested: \_\_\_\_\_ Evidence Wt. \_\_\_\_\_

PHYSICAL DESCRIPTION: Gross Wt ( ) : \_\_\_\_\_

Residue in 2 phs

Gross Wt ( ) : \_\_\_\_\_

Scraped 1 ph

Pkg. Wt: \_\_\_\_\_

Net Wt: \_\_\_\_\_

## PRELIMINARY TESTS

### Spot Tests

Cobalt  
Thiocyanate (+) \_\_\_\_\_

Marquis - \_\_\_\_\_

Froehde's \_\_\_\_\_

Mecke's \_\_\_\_\_

### Microcrystalline Tests

Gold  
Chloride + \_\_\_\_\_

TLTA (+) \_\_\_\_\_

### OTHER TESTS

GC+ \_\_\_\_\_

## PRELIMINARY TEST RESULTS

RESULTS cocaine

DATE 11-02-10

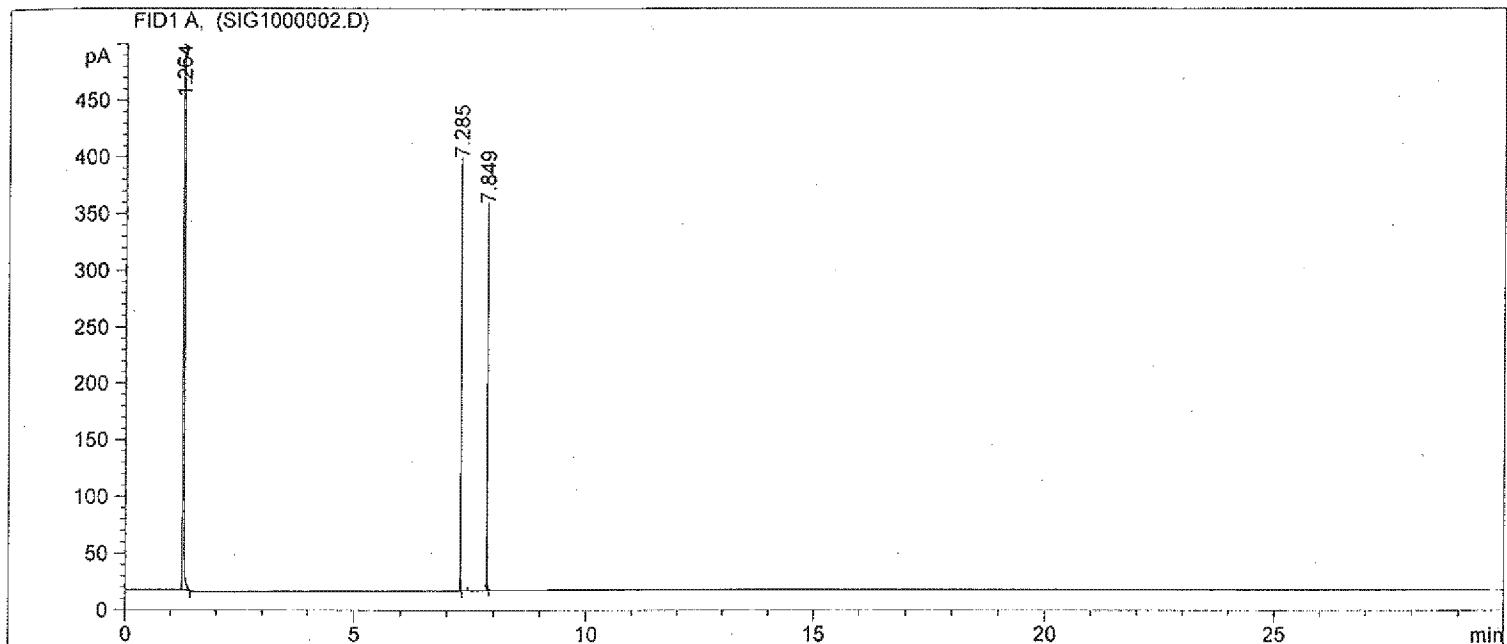
## GC/MS CONFIRMATORY TEST

RESULTS cocaine

MS  
OPERATOR KAC

DATE 11-18-10

Acq. Operator : ASD Seq. Line : 2  
Acq. Instrument : Drug Lab GC#3 Location : Vial 2  
Injection Date : 11/10/2010 2:13:52 PM Inj : 1  
Inj Volume : 1  $\mu$ l  
Sequence File : C:\CHEM32\1\SEQUENCE\DEFAULT.S  
Method : C:\CHEM32\1\METHODS\SCREEN.M  
Last changed : 8/3/2010 11:51:05 AM



Area Percent Report

Sorted By : Retention Time  
Multiplier: : 1.0000  
Dilution: : 1.0000  
Sample Amount: : 1.00000 [ng/ $\mu$ l] (not used in calc.)  
Do not use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Sig	Type	Area [pA*s]	Height [pA]	Area %
1	1.264	1	BB S	8.16027e4	7.12794e4	99.33404
2	7.285	1	BB	279.18530	377.40555	0.33985
3	7.849	1	BB	267.89630	336.74728	0.32611

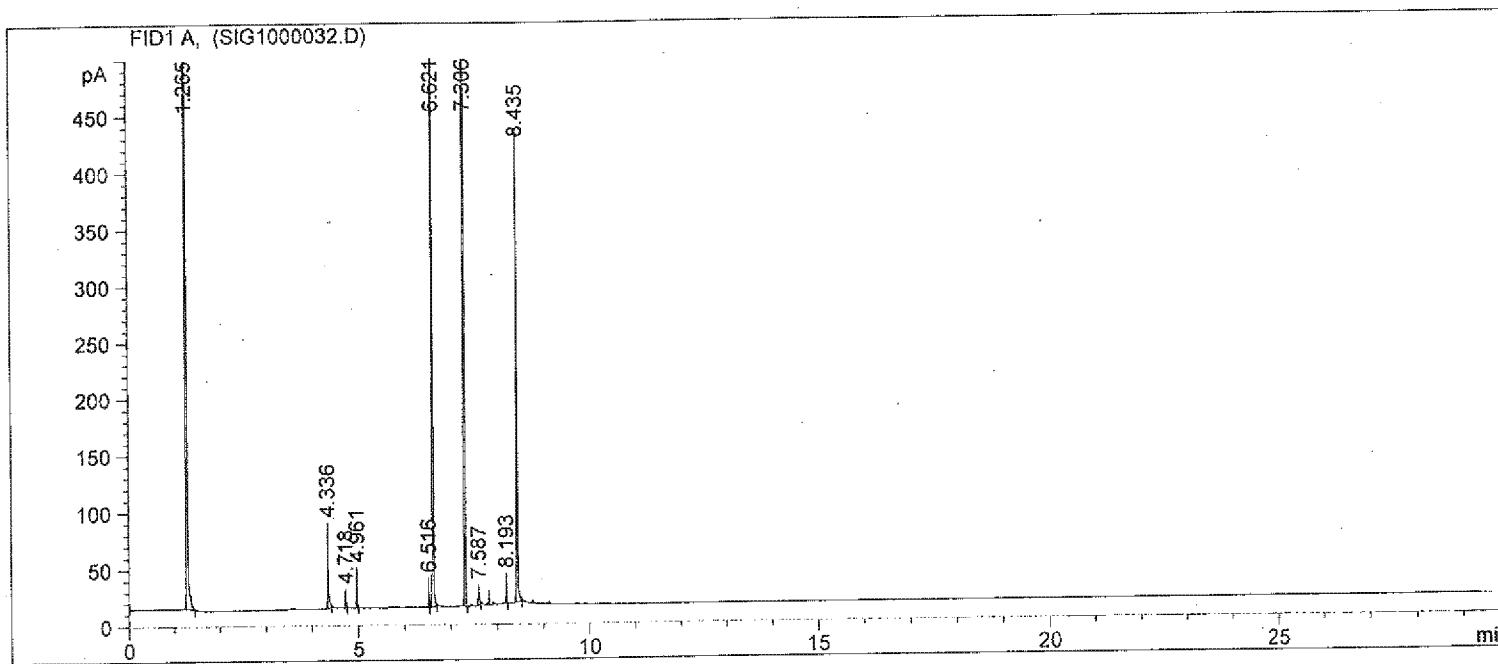
Totals : 8.21498e4 7.19935e4

\*\*\* End of Report \*\*\*

Sample Name: [REDACTED]

```

=====
Acq. Operator : ASD                               Seq. Line : 32
Acq. Instrument : Drug Lab GC#3                Location : Vial 32
Injection Date : 11/11/2010 7:24:12 AM          Inj : 1
                                                Inj Volume : 1 µl
Sequence File : C:\CHEM32\1\SEQUENCE\DEFAULT.S
Method       : C:\CHEM32\1\METHODS\SCREEN.M
Last changed  : 8/3/2010 11:51:05 AM
=====
```



## Area Percent Report

```

=====
Sorted By      : Retention Time
Multiplier:   : 1.0000
Dilution:     : 1.0000
Sample Amount: : 1.00000 [ng/µl] (not used in calc.)
Do not use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: FID1 A,

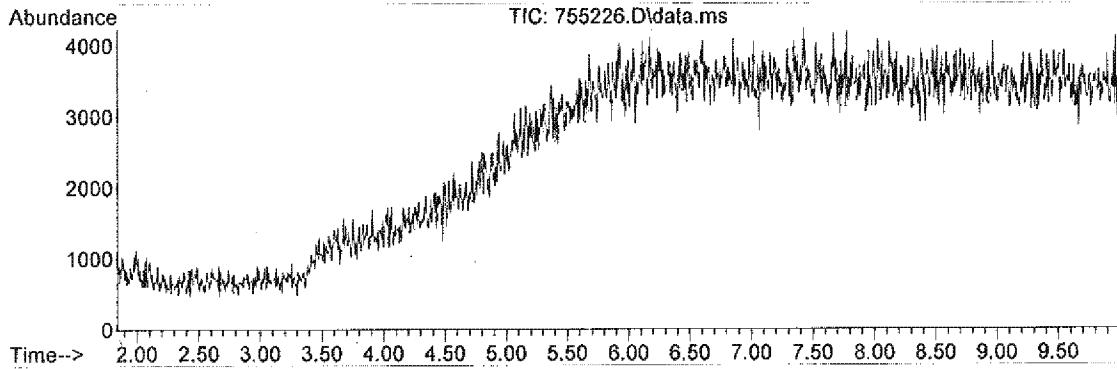
Peak #	RetTime [min]	Sig	Type	Area [pA*s]	Height [pA]	Area %
1	1.265	1	BB S	7.53621e4	7.61851e4	92.77139
2	4.336	1	BB	99.38223	75.05242	0.12234
3	4.718	1	BB	17.90690	16.75219	0.02204
4	4.961	1	BB	34.64471	35.69565	0.04265
5	6.516	1	BB	20.89819	25.80474	0.02573
6	6.621	1	BB	1333.06189	860.69098	1.64101
7	7.306	1	BB	3705.14038	2843.61914	4.56106
8	7.587	1	BB	27.45032	18.14720	0.03379
9	8.193	1	BB	22.99327	25.99021	0.02830
10	8.435	1	BB	610.62823	405.22009	0.75169

Totals : 8.12343e4 8.04921e4

✓KAC  
10/25/11

## Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11\_16\_10\755226.D  
Operator : KAC  
Date Acquired : 16 Nov 2010 16:50  
Sample Name : BLANK  
Submitted by :  
Vial Number : 1  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

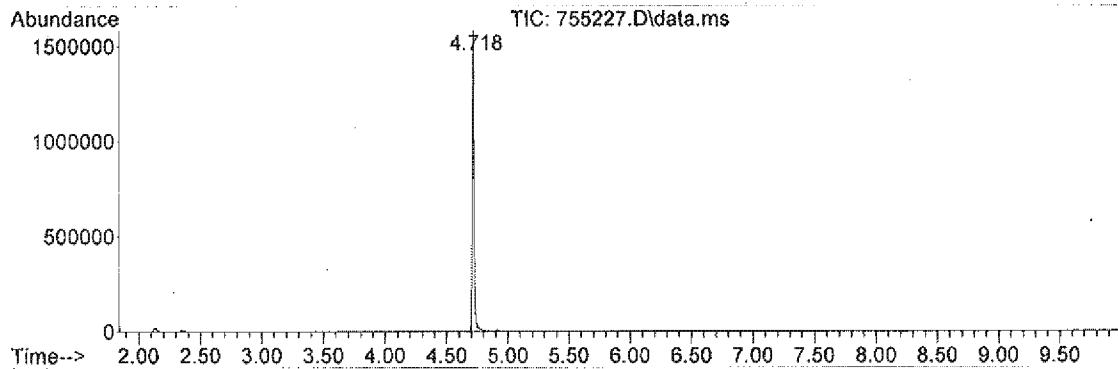
Area Percent / Library Search Report

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Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11\_16\_10\755227.D  
Operator : KAC  
Date Acquired : 16 Nov 2010 17:03  
Sample Name : COCAINE STD  
Submitted by :  
Vial Number : 27  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

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Ret. Time	Area	Area %	Ratio %
4.718	1639070	100.00	100.00

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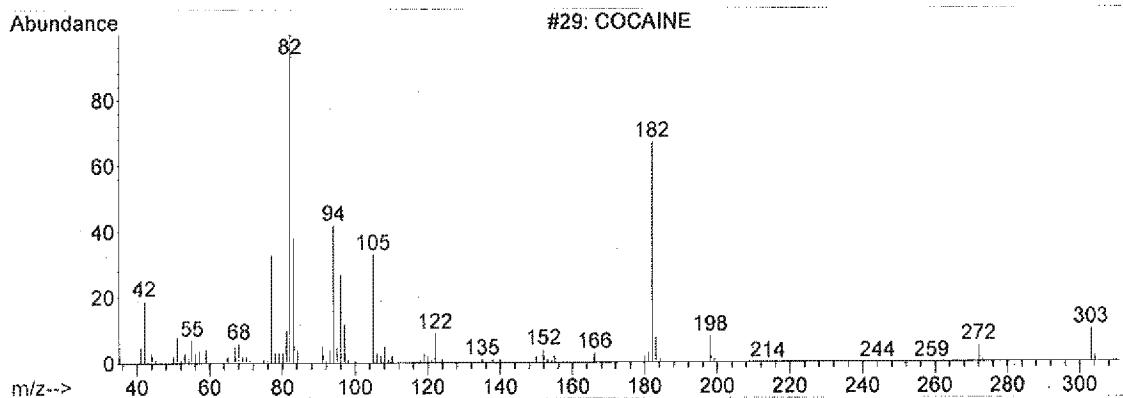
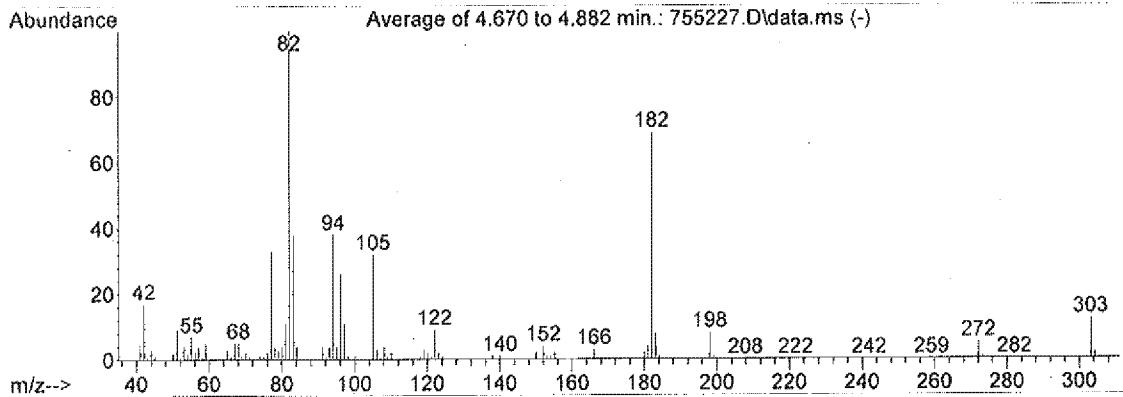
## Area Percent / Library Search Report

## Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11\_16\_10\755227.D  
Operator : KAC  
Date Acquired : 16 Nov 2010 17:03  
Sample Name : COCAINE STD  
Submitted by :  
Vial Number : 27  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

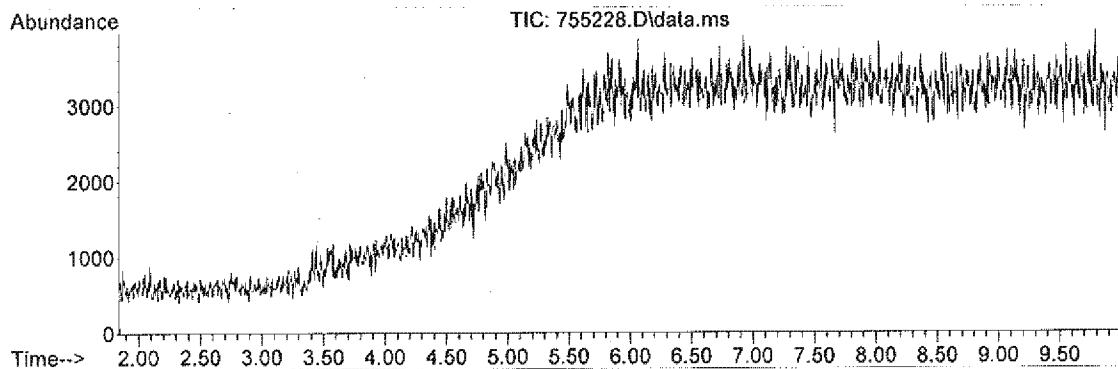
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C:\Database\NIST05a.L Minimum Quality: 75  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	4.72	C:\Database\SLI.L COCAINE	000050-36-2	99



## Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11\_16\_10\755228.D  
Operator : KAC  
Date Acquired : 16 Nov 2010 17:16  
Sample Name : BLANK  
Submitted by : ASD  
Vial Number : 1  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



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Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

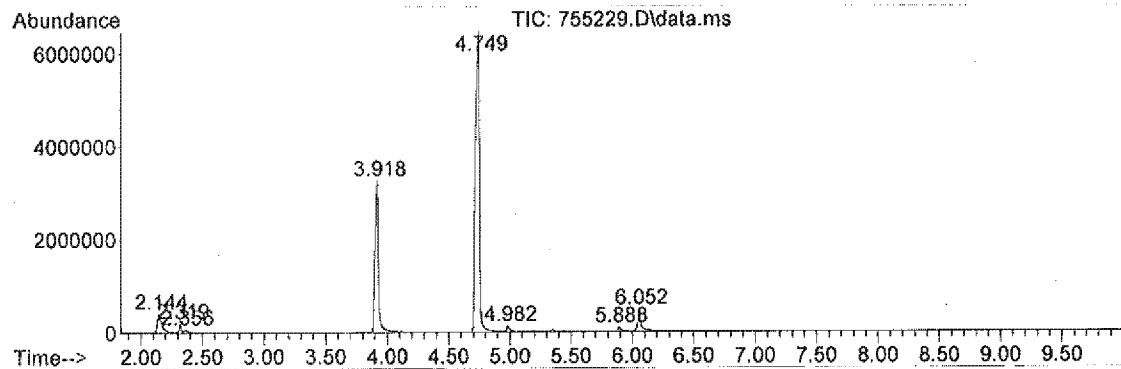
Area Percent / Library Search Report

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Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11\_16\_10\755229.D  
Operator : KAC  
Date Acquired : 16 Nov 2010 17:28  
Sample Name : XXXXXXXXXX  
Submitted by : ASD  
Vial Number : 29  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

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Ret. Time	Area	Area %	Ratio %
2.144	1076165	4.45	7.33
2.319	207695	0.86	1.41
2.356	163910	0.68	1.12
3.918	6723139	27.79	45.78
4.749	14687016	60.72	100.00
4.982	192694	0.80	1.31
5.888	170562	0.71	1.16
6.052	968036	4.00	6.59

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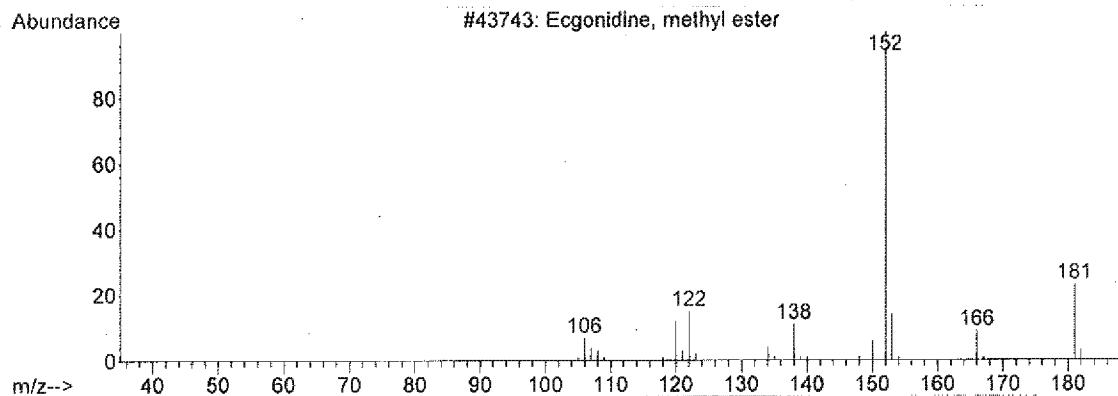
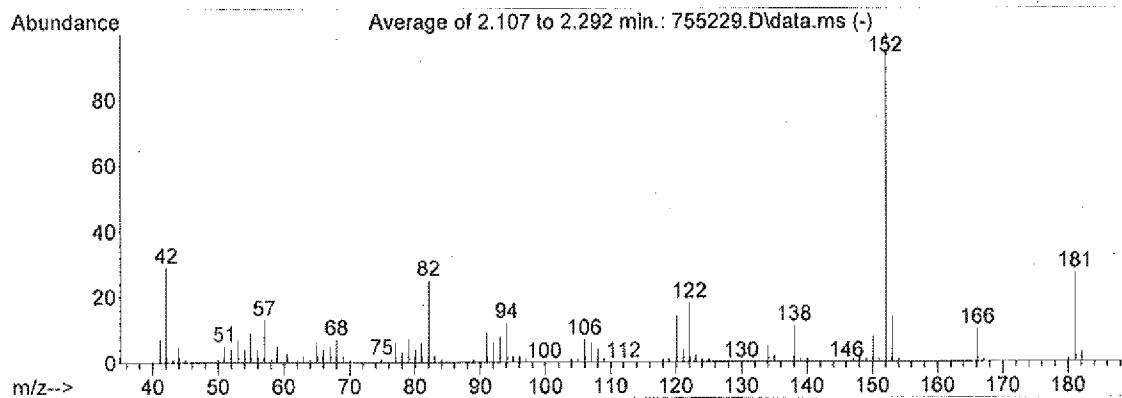
## Area Percent / Library Search Report

## Information from Data File:

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Operator : KAC  
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Submitted by : ASD  
Vial Number : 29  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 75  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	2.14	C:\Database\NIST05a.L		
		Ecgonidine, methyl ester	127379-24-2	98
		2-Carbomethoxy-8-methyl-8-azabicycl	043021-26-7	97
		1,4-Benzenediol, 2,3,5-trimethyl-	000700-13-0	43



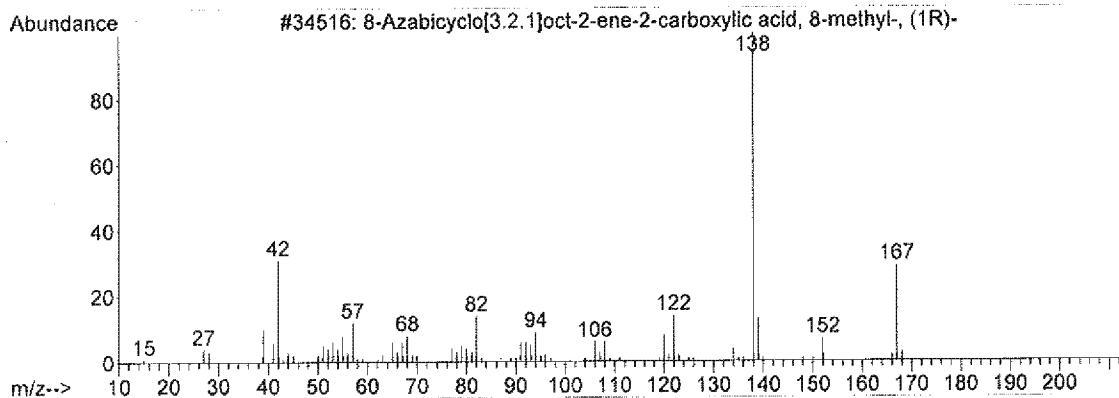
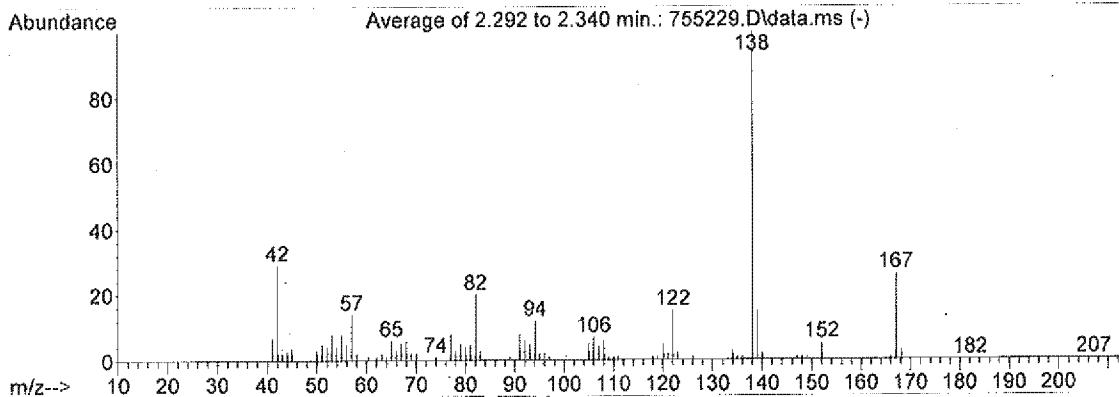
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Sample Name : XXXXXXXXXX  
Submitted by : ASD  
Vial Number : 29  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 75  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
2	2.32	C:\Database\NIST05a.L		
		8-Azabicyclo[3.2.1]oct-2-ene-2-carb	000484-93-5	94
		Benzeneethanamine, 3-hydroxy-4-meth	003213-30-7	53
		Methyl pinidine	1000116-09-2	42



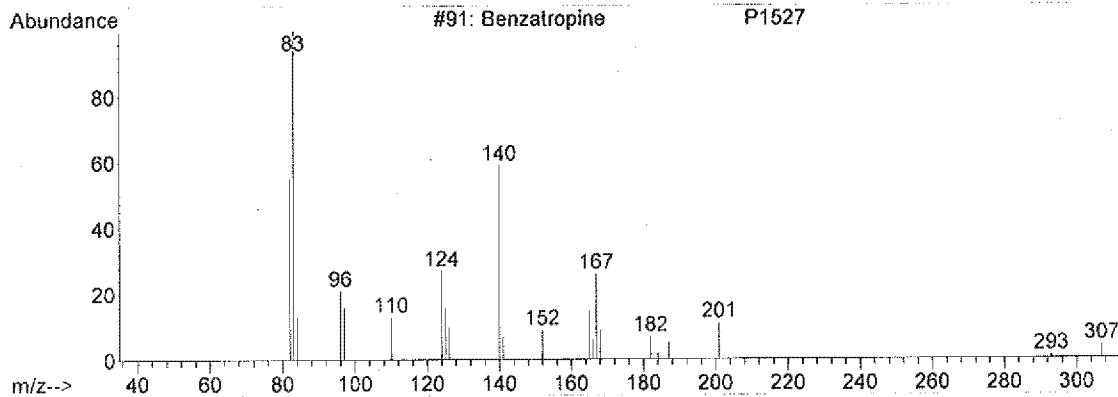
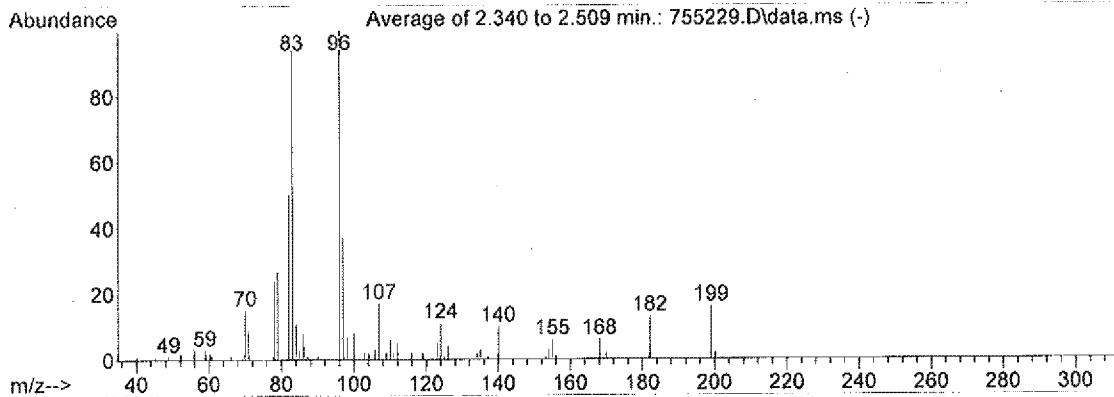
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File Name : F:\Q4-2010\SYSTEM7\11\_16\_10\755229.D  
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 Date Acquired : 16 Nov 2010 17:28  
 Sample Name : XXXXXXXXXX  
 Submitted by : ASD  
 Vial Number : 29  
 AcquisitionMeth: DRUGS.M  
 Integrator : RTE

Search Libraries:	C:\Database\SLI.L	Minimum Quality: 80
	C:\Database\NIST05a.L	Minimum Quality: 75
	C:\Database\PMW_TOX2.L	

PK#	RT	Library/ID	CAS#	Qual
3	2.36	C:\Database\PMW_TOX2.L		
		Benzatropine	000086-13-5	9
		Tilidine-M (nor-)	038677-94-0	9
		Lobeline artifact	000000-00-0	2



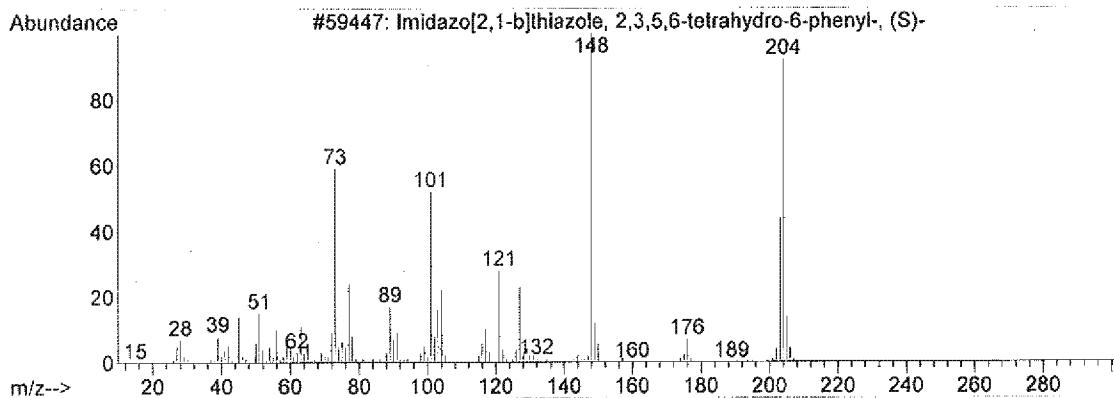
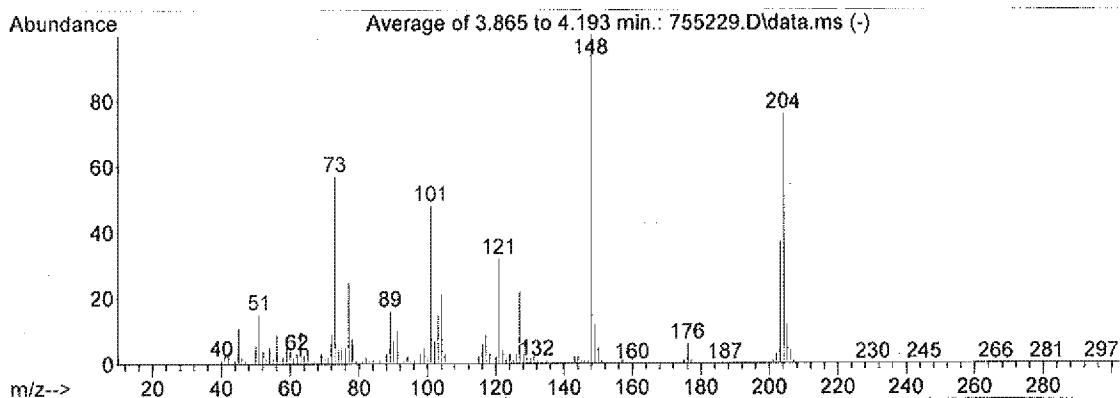
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File Name : F:\Q4-2010\SYSTEM7\11\_16\_10\755229.D  
Operator : KAC  
Date Acquired : 16 Nov 2010 17:28  
Sample Name : XXXXXXXXXX  
Submitted by : ASD  
Vial Number : 29  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 75  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
4	3.92	C:\Database\NIST05a.L		
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	014769-73-4	99
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	014769-73-4	99
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	006649-23-6	98



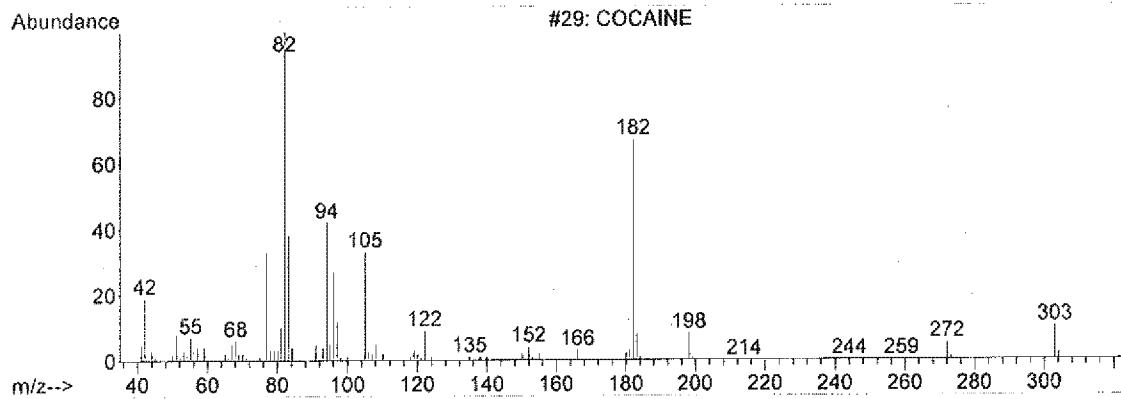
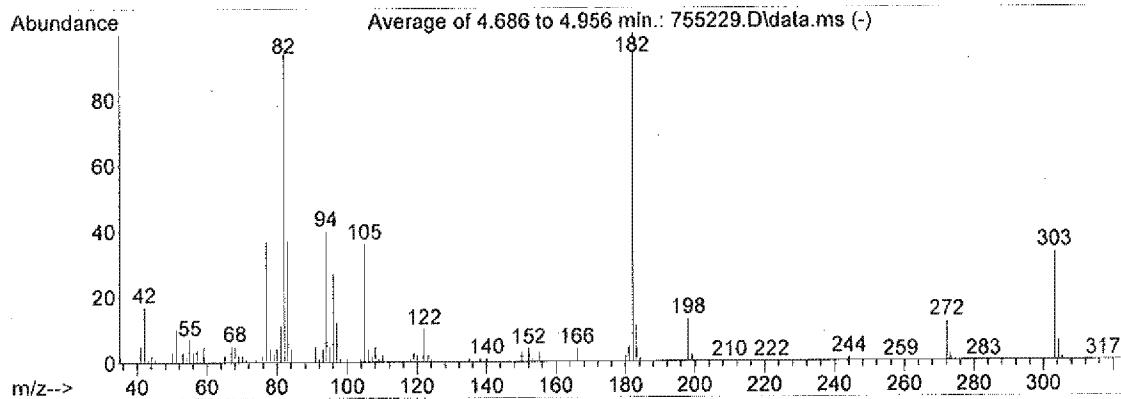
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Operator : KAC  
Date Acquired : 16 Nov 2010 17:28  
Sample Name : XXXXXXXXXX  
Submitted by : ASD  
Vial Number : 29  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 75  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
5	4.75	C:\Database\SLI.L COCAINE	000050-36-2	99

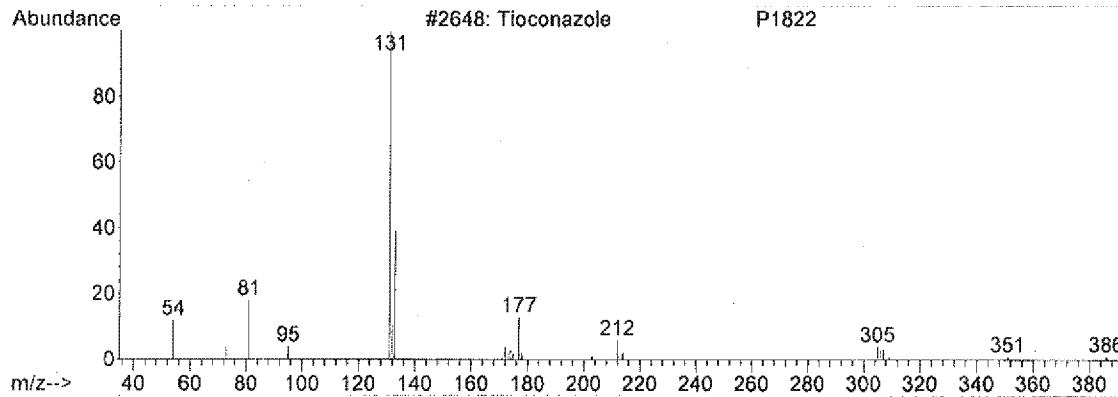
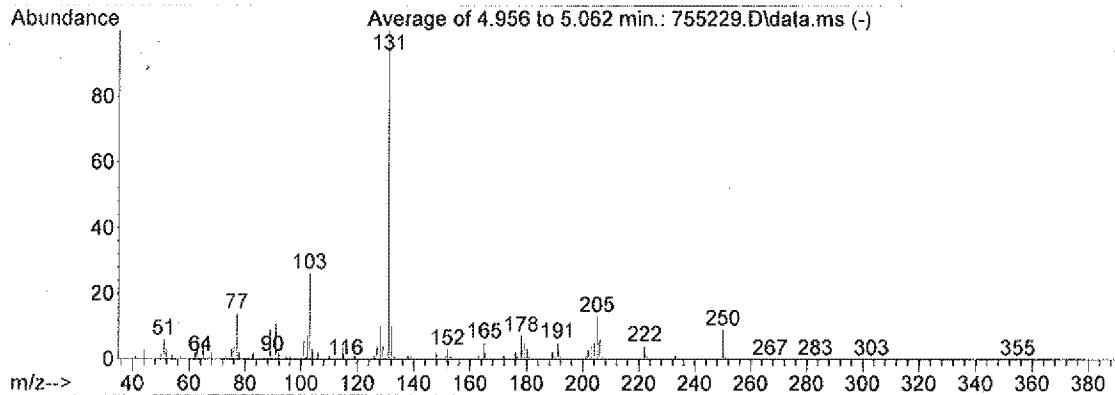


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Date Acquired : 16 Nov 2010 17:28  
Sample Name : XXXXXXXXXX  
Submitted by : ASD  
Vial Number : 29  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 75  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
6	4.98	C:\Database\PMW_TOX2.L Tioconazole	065899-73-2	1

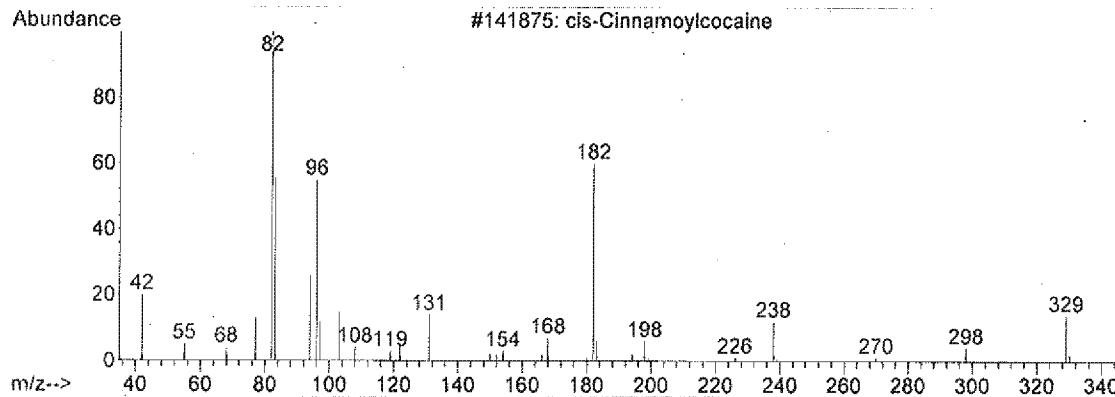
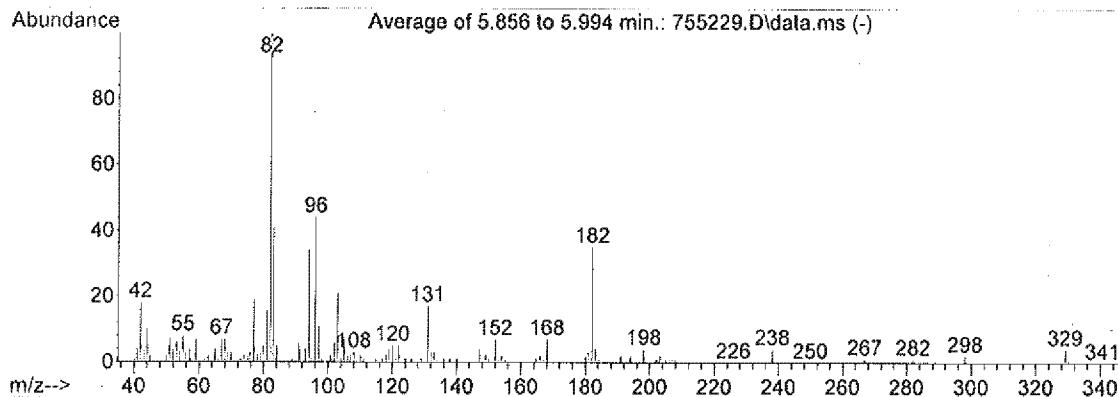


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Submitted by : ASD  
Vial Number : 29  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 75  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
7	5.89	C:\Database\NIST05a.L		
		cis-Cinnamoylcocaine	000521-67-5	98
		Cinnamoylcocaine	1000247-78-7	87
		Acetoxyecgonine methyl ester	203320-36-9	59

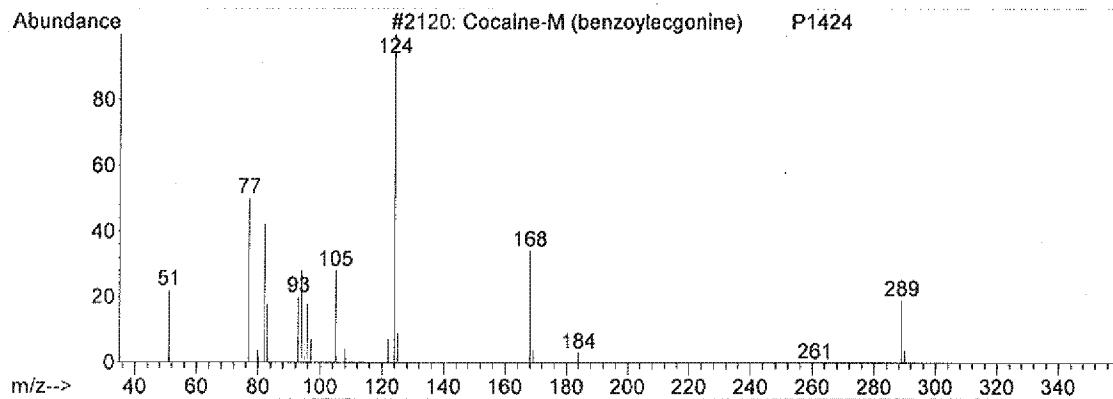
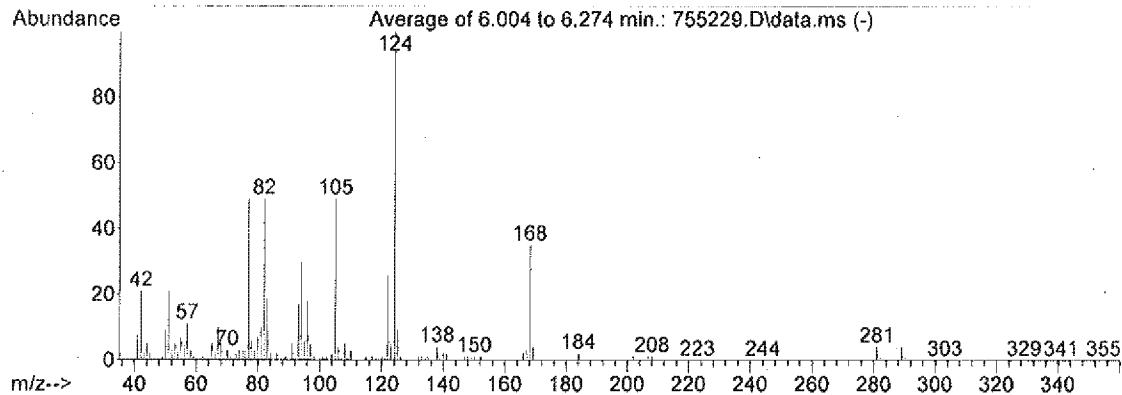


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Date Acquired : 16 Nov 2010 17:28  
Sample Name : XXXXXXXXXX  
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Vial Number : 29  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

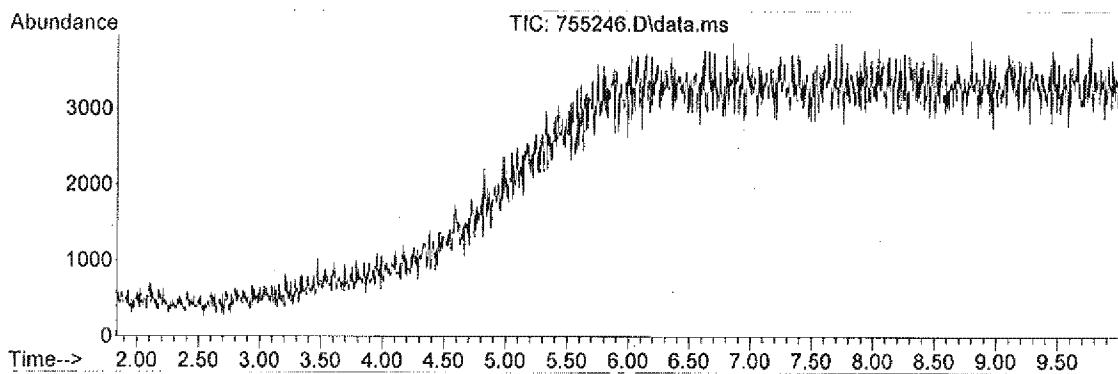
Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 75  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
8	6.05	C:\Database\PMW_TOX2.L		
		Cocaine-M (benzoylecgonine)	000519-09-5	96
		Mequitazine-M (sulfone)	000000-00-0	9
		DOM precursor-2 2AC	000000-00-0	9



## Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11\_16\_10\755246.D  
Operator : KAC  
Date Acquired : 16 Nov 2010 21:03  
Sample Name : BLANK  
Submitted by :  
Vial Number : 1  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

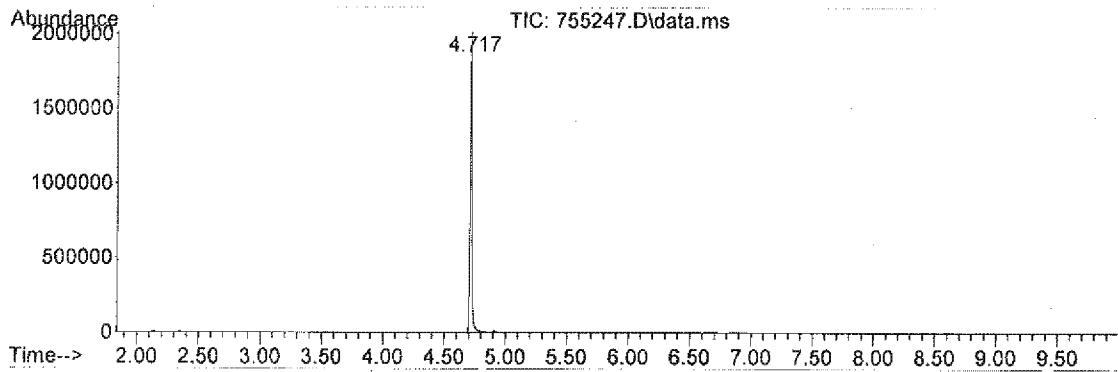


Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

## Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11\_16\_10\755247.D  
Operator : KAC  
Date Acquired : 16 Nov 2010 21:15  
Sample Name : COCAINE STD  
Submitted by :  
Vial Number : 47  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



Ret. Time	Area	Area %	Ratio %
4.717	2086054	100.00	100.00

## Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\11\_16\_10\755247.D  
Operator : KAC  
Date Acquired : 16 Nov 2010 21:15  
Sample Name : COCAINE STD  
Submitted by :  
Vial Number : 47  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 75  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	4.72	C:\Database\SLI.L COCAINE	000050-36-2	99

